

National Canners Association

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Information
Letter



For N. C. A.
Members

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Abstracts of Canning Technology.
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Abstracts of Canning Technology.

The attention of members is invited to the second number of Abstracts of Canning Technology, which will be mailed to them in a day or two. It is suggested that all copies of this journal be preserved, because it is planned that an index will be published annually. Each member will thus have a permanent record of technological articles appearing in the trade papers and elsewhere.

Suggestions regarding this publication are invited.

Unusual Causes of Spoilage in Canned Foods.

Two unusual causes of spoilage of canned foods have recently been pointed out by the N.C.A. Research Laboratory as a result of studies it has made in the plants of our members.

Peas. -- In one plant, peas were processed at 250° in No. 10 cans, with the retort partly filled with water. The cans were rather loosely stacked in the crates and considerable vibration occurred during processing. Thus, while the cans were under the maximum strain that they would stand they were hammered against each other by the vibration in such manner that small leaks were produced which could not be detected by filing in examining the cans. The leaks were sufficient, however, to permit the introduction of bacteria which caused the spoilage of the goods. It was conclusively demonstrated that these bacteria would not stand the heat of processing and must have entered the cans in this manner.

Pitted Cherries. -- One canner recently sent to the Research Laboratory a number of jars of pitted cherries, some of which were of natural color, while in the others the color had been entirely bleached out. The bleached cherries were found to contain small pieces of metal which consisted largely of aluminum. The source of the metal has not yet been determined. It is known, however, that the cylinder of cherry pitters is made of aluminum alloy and it sometimes

happens that a plunger becomes slightly bent and gouges particles of metal from the cylinder.

These two instances serve to illustrate a general question that should be borne in mind by canners. Changes are constantly being made in canning machinery. New and improved machines become available each year. These machines sometimes involve changes in the sterilizing value of the process and the strains placed on cans during the process which are not recognized until they go into general use. Thus it may be expected that from time to time new causes of spoilage will arise and it is important that these causes be understood at the earliest possible moment. The plan for the return of swells which is now contemplated will afford an unusual opportunity for trained technologists to study the spoilage that occurs in the plants of our members and it may be expected that new and unusual causes will be investigated and understood at an earlier date than has been possible in the past.

Canned Vegetables and Fruits Safer Than Raw.

A blow to certain food faddists, who argue that canned foods--which, after all, are merely cooked foods--are deleterious to health, was given by no less an authority than Professor Borrel, of the Pasteur Institute. Professor Borrel, addressing the International Cancer Congress, which recently met at Strasbourg University, stated that the experiments he has conducted "show the very great danger that lies in the human consumption of raw vegetables, salads, strawberries, radishes, and similar products cultivated intensively with the use of much rich manure, itself swarming with parasitical life."

Popular writers advising against the use of canned foods have seized upon the subject of vitamins and have frequently stated that canned foods should be avoided because the vitamins contained in the raw products were destroyed in processing. This has been shown to be untrue. The National Canners Association Research Laboratory Bulletin No. 19-L, published in 1922, showed that it was definitely known in the scientific world that two of the three recognized vitamins were not affected appreciably, if at all, by the canning process. It also showed that there was no scientific evidence that the third vitamin (vitamin C, which is necessary to prevent scurvy), was destroyed to a greater extent by canning than by cooking in the kitchen. Since that time our Research Laboratory has enlisted the interest of Doctor Eddy, Professor of Physiological Chemistry of Columbia University, and an experimental study of the influence of the canning process on the vitamin content of foods is now being conducted jointly by the two laboratories. We are not at liberty at this time to make a public statement regarding the matter, but it will interest our membership to know that as far as the work has gone, the results are favorable to canned foods.

N.C.A. Raw Products Research Bureau Participates in Seed Conference.

At a meeting in Chicago, called by the International Crop Improvement Association, careful consideration was given to plans for seed legislation and for increased activity by the United States Department of Agriculture on matters relating to seed improvement. The conference went on record as approving the amendment of the Seed Importation Act and endorsing the proposal of the United States Department of Agriculture to expand its vegetable and field seed studies.

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The feeling was general that if the Department of Agriculture were enabled by appropriate legislation and budget action to carry out the program proposed, the results would be of inestimable value both to seed buyers and to the more progressive elements in the seed producing and distributing trades.

The Bureau of Raw Products Research of the National Canners Association has been keeping in close touch with the development of the Department of Agriculture plans on this whole matter. The organization of comprehensive field trials of varieties of vegetables used by canners will be possible if funds are appropriated by Congress to finance this important work. Studies of the nomenclature of vegetable varieties are also contemplated, the result of which will be to correct the present chaotic conditions under which the same variety is often sold under many different names.

Much of the work which the Department of Agriculture now proposes to do was provided for in the Capper Bill introduced last session in Congress. The feeling of the Chicago Conference and the expression of the Department of Agriculture indicates that if the funds needed can be furnished through the budget, it will not be necessary to seek statutory legislation, except for the amendment of the Seed Importation Act.

Canned Shrimp Praised by Copeland.

Dr. Royal S. Copeland, United States Senator from New York, who has repeatedly endorsed canned foods in his syndicated newspaper letters, in a current letter praises canned shrimp. Doctor Copeland writes:

"Do you realize that certain delicacies are safer and even more delicious because they have been canned or bottled? Among such are the crustaceans.

"What are crustaceans? They are the hard-crust animals, such as the crabs, lobsters, prawns, shrimp, and crawfish.

"There is always a temptation to overeat delicacies of every kind. This is true of shrimp, of course.

"Shrimp are not eaten as beefsteak is. They are served in salads, patties, or as an entree.

"Variety is of the greatest importance in selecting foods. We try to accustom ourselves to one kind of a breakfast, for instance. That will do very well for one meal a day, but most of us are glad to have our appetites coaxed a bit at the other meals. Surprises appeal to us and the wise housewife uses her thinking cap in planning her table.

"The sight of an appetizing dish excites the flow of saliva and the gastric juices. To approach a meal with the assistance of the emotions gives promise of speedy and perfect digestion.

"Canned sea-food--because of its appealing appearance, does much to stimulate this desirable physical state."

Vitamins in Canned Foods, Government Bulletin Advises.

According to the Department of Agriculture, canned fruits and vegetables would help to supply us more fully with organic acids, with mineral matter in various forms, and, to a certain extent, "with those newly discovered substances called vitamins".

These vitamins, along with mineral salts, the review states, are essential for growth, health, and well-being, and may sometimes be procured to better advantage from fruits and vegetables than from more expensive foods. In support of this statement appears this:

"It has been frequently urged that the heat of canning destroys vitamins. Recent investigations, however, indicate that this is by no means invariably true, or if it occurs may be only partial. And if, for instance, two tablespoonfuls a day of the juice of canned tomatoes will prevent an infant from having scurvy, as seems indeed to be the case, it is not necessary to concern ourselves with the problem of whether one-half tablespoonful of the juice of fresh tomatoes might not have done the same work just as well.

"So far as is known at present, the value of canned fruits and vegetables, as sources of much needed mineral salts, organic acids, and certain other valuable food materials is approximately equal to that of freshly cooked fruits and vegetables.

"Therefore, canned products are worthy of a larger share of the housewife's consideration than they usually receive. They are a valuable resource in time of emergency, and may also be used as the foundation for a great variety of delectable dishes."

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